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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/927,957	08/09/2001	Lise Wiseman	12587-008001	5383

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EXAMINER

ZHEN, LI B

ART UNIT	PAPER NUMBER
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2194

DATE MAILED: 07/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/927,957

Applicant(s)

WISEMAN ET AL.

Examiner

Li B. Zhen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5/19/06
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1 – 48 are pending in the application.
2. In view of the Appeal Brief filed on 05/16/2006, PROSECUTION IS HEREBY REOPENED. New grounds of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

Specification

3. The disclosure [p. 17, paragraph 0039] is objected to because it contains an embedded hyperlink and/or other form of browser-executable code. Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

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4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1 – 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,549,956 to Bass et al. [hereinafter Bass] in view of U.S. Patent No. 6,931,392 to Skeen.

7. As to claim 1, Bass teaches the invention substantially as claimed including a method of exchanging information among applications [adapters acts as a proxy or an agent for communications and data exchanges between the business applications; col. 3, lines 22 – 50], the method comprising:

providing a plurality of transformers [channel adapter], each transformer corresponding to a unique transformation from one format into another [Each channel

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adapter is based on the existing PUB/SUB engine of that domain, as well as the protocol used in the network channel between the channel adapters; col. 1, line 60 – col. 2, line 15];

using a first transformer to transform a data object from a format understandable by a first application into a common format data object [channel adapters convert the event information into a format acceptable by the network; col. 2, lines 15 – 33 and col. 3, lines 20 – 51];

publishing the common format data object to a communication channel [framework interface facilitates the publishing of events to the broker from the channel adapter... Each channel adapter includes a protocol interface 22, 23. This interface comprises the network specific protocols that enable the adapter to couple with the Internet 11; col. 3, line 50 – col. 4, line 18],

subscribing to the communication channel [configure the broker 17 to list channel adapter 15 as a subscriber to the event... channel adapter 14 to publish the event to interested process adapter in domain 1; col. 4, line 56 – col. 5, line 16] to retrieve the published common format data object [adapter 15 would receive the event from the process; col. 4, line 56 – col. 5, line 16]; and

using a second transformer to transform the common format data object into a format understandable by a second application [receiving channel adapter 14 reformats the event, and then publishes the event to the broker 16, which republishes the event to subscribing process adapter 18 within domain 112; col. 4, lines 42 – 57].

Although Bass teaches the invention substantially, Bass does not specifically disclose publishing data object to a selected communication channel.

However, Skeen teaches publish-subscriber communications system [col. 5, lines 36 – 56], publishing events to a communication channel [data are published on the channel; col. 5, lines 22 - 37], subscribing to a communication channel [col. 5, lines 23 – 37], facilitates the transfer of event data and the results provided between systems based on different protocols [col. 6, lines 30 - 52], and publishing data object to a selected communication channel [decision support system receives the events as they occur, computes results caused by the events asked for by the queries to the decision support system, stores the results in a plurality of collections (or tables) if necessary, and publishes the results of queries to users; col. 5, line 55 – col. 6, line 3].

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to apply the teachings of publishing data object to a selected communication channel as taught by Skeen to the invention of Bass because this provides essentially immediate data when an event creating the data occurs, permits periodic publication of data changes, and this is especially useful for both furnishing real-time data to a real-time decision support system and for publishing the results provided by queries posed to a decision support system by users of the system [col. 5, lines 45 – 57 of Skeen].

8. As to claim 18, Bass as modified teaches facilitating the exchange of information among applications [adapters acts as a proxy or an agent for communications and data

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exchanges between the business applications; col. 3, lines 22 – 50 of Bass], the method comprising:

receiving a data object from a first application [An event originating in a process adapter 18; col. 3, lines 21 – 51 of Bass];

using a first controller to route the received data object to a first transformer [brokers route published events to interested subscribers; col. 4, line 56 – col. 5, line 16 of Bass];

using the first transformer to transform the data object from a first format used by the first application into a common format object [channel adapters convert the event information into a format acceptable by the network; col. 2, lines 15 – 33 and col. 3, lines 20 – 51 of Bass];

publishing the common format object to a communication channel [framework interface facilitates the publishing of events to the broker from the channel adapter... Each channel adapter includes a protocol interface 22, 23. This interface comprises the network specific protocols that enable the adapter to couple with the Internet 11; col. 3, line 50 – col. 4, line 18 of Bass];

receiving a request from a subscribing application to subscribe to the communication channel [configure the broker 17 to list channel adapter 15 as a subscriber to the event... channel adapter 14 to publish the event to interested process adapter in domain 1; col. 4, line 56 – col. 5, line 16 of Bass and col. 5, lines 23 – 37 of Skeen];

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using a second controller to route the common format object to a second transformer [channel adapter 15 would signal the channel adapter 14 that a new event is going to be received by channel adapter 14, and sends the updated export list to the other channel adapter; col. 4, line 56 – col. 5, line 16 of Bass];

using the second transformer to transform the common format object into a data object in a second format used by the subscribing application [receiving channel adapter 14 reformats the event, and then publishes the event to the broker 16, which republishes the event to subscribing process adapter 18 within domain 112; col. 4, lines 42 – 57 of Bass]; and

sending the data object in the second format to the subscribing application [channel adapter then delivers the event to any subscribing process adapters within the domain; col. 3, lines 21 - 51 of Bass].

9. As to claim 28, Bass as modified teaches a system for facilitating the exchange of information among applications [adapters acts as a proxy or an agent for communications and data exchanges between the business applications; col. 3, lines 22 – 50 of Bass], the system comprising:

a plurality of digital computers [network of computers; col. 3, lines 3 – 22 of Bass], each of which executes application [process adapters are communicating with business applications; col. 3, lines 3 – 22 of Bass], each application being configured to exchange information representative of business events [business event; col. 9, lines 5 – 61 of Bass] with other applications [col. 3, lines 22 – 50 of Bass]; and

an integration hub [publish/subscribe engine; col. 8, lines 36 – 65 of Bass] in a data communication with each of the digital computers [col. 3, lines 3 – 22 of Bass] for enabling transfer of information representative of business events [business event; col. 9, lines 5 – 61 of Bass] between applications [col. 3, lines 22 – 50 of Bass], the integration hub including a computer-readable medium [col. 10, lines 25 – 39 of Bass] on which encoded instructions for causing the computer to define

a plurality of process models each defining one or more conditions for sending a business event from an application to one or more other applications [a domain specific publication/subscription (PUB/SUB) service 16, 17; col. 3, lines 1 – 22 of Bass];

a shared object model configured to store data objects received from applications in a common format [col. 3, lines 63 – 67 of Skeen];

a plurality of transformer classes configured to translate data object from a format used by one or more applications into the common format [channel adapters convert the event information into a format acceptable by the network; col. 2, lines 15 – 33 and col. 3, lines 20 – 51 of Bass] or vice versa [receiving channel adapter 14 reformats the event, and then publishes the event to the broker 16, which republishes the event to subscribing process adapter 18 within domain 112; col. 4, lines 42 – 57 of Bass]; and

a plurality of controller classes configured to route data objects to associated transformer classes [brokers route published events to interested subscribers; col. 4, line 56 – col. 5, line 16 of Bass].

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10. As to claim 38, this is similar in scope to claim 18; therefore, this claim is rejected for the same reasons as claim 18 above.

11. As to claim 2, Bass teaches the data object corresponds to one or more of a plurality of business events [business event; col. 9, lines 5 – 61].

12. As to claim 3, Bass as modified teaches using the first transformer to transform the data object from the format understandable by the first application into the common format data object [col. 2, lines 15 – 33 and col. 3, lines 20 – 51 of Bass] comprises translating the data object from a vendor-specific format associated with the first application to an Interface Data Language (IDL) object [col. 6, lines 30 – 52 of Skeen] and storing the IDL object in a shared object model [col. 3, lines 63 – 67 of Skeen].

13. As to claim 4, Bass as modified teaches the shared object model comprises a central repository of data objects [col. 6, line 50 – col. 7, line 3 of Skeen] corresponding to business events [business event; col. 9, lines 5 – 61 of Bass].

14. As to claim 5, Bass teaches using a first transformer to transform the data object from the format understandable by the first application into the common format data object is performed in response to a recognition of a business event by the first application [event originating in a process adapter 18 in domain 112 is delivered to the subscribing channel adapter 14. This event would be transformed into (for example) an

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e-mail via SMTP, and mailed from the channel adapter through the Internet to domain 213; col. 3, lines 21 - 50].

15. As to claim 6, Bass teaches that the method is performed in accordance with a plurality of process models that collectively define when information is to be exchanged among applications [a domain specific publication/subscription (PUB/SUB) service 16, 17; col. 3, lines 1 – 22].

16. As to claim 7, Bass teaches publishing the common data format object to a communications channel is performed by a source connector [An event originating in a process adapter 18; col. 3, lines 21 - 51] and subscribing to the communication channel is performed by a target connector [subscribing process adapters; col. 3, lines 21 – 50].

17. As to claim 8, Bass as modified teaches publishing the common format data object to a communication channel is performed in accordance with a channel architecture that defines a plurality of communication channels having relative priorities [col. 10, lines 12 – 26 of Skeen].

18. As to claim 9, Bass as modified teaches using the second transformer to transform the common format data object into the format understandable by the second application comprises retrieving a stored Interface Data Language (IDL) format object [col. 6, lines 30 – 52 of Skeen] from a central repository [col. 3, lines 63 – 67 of Skeen]

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and translating the IDL object into a vendor-specific format associated with the second application [col. 4, lines 42 – 57 of Bass].

19. As to claim 10, Bass as modified teaches information is exchanged among business support systems or operational support systems or a combination thereof [decision support system receives the events as they occur, computes results caused by the events asked for by the queries to the decision support system, stores the results in a plurality of collections (or tables) if necessary, and publishes the results of queries to users; col. 5, line 55 – col. 6, line 3 of Skeen].

20. As to claim 11, Bass as modified teaches at least one of the transformers comprises a class defined in an object-oriented programming language [col. 6, lines 30 – 50 of Skeen].

21. As to claim 12, Bass teaches a controller that is configured to route data objects to an associated transformer [brokers route published events to interested subscribers; col. 4, line 56 – col. 5, line 16].

22. As to claim 13, Bass teaches routing a data object to the first transformer using a first controller [col. 4, line 56 – col. 5, line 16].

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23. As to claim 14, Bass teaches routing the common format data object to the second transformer using a second controller [channel adapter 15 would signal the channel adapter 14 that a new event is going to be received by channel adapter 14, and sends the updated export list to the other channel adapter; col. 4, line 56 – col. 5, line 16].

24. As to claim 15, Bass as modified teaches at least one of the controllers comprises a class defined in an object-oriented programming language [col. 6, lines 30 – 50 of Skeen].

25. As to claim 16, Bass teaches an acknowledgement class to exchange status messages among applications [col. 7, line 65 – col. 8, 12].

26. As to claim 17, Bass teaches using the acknowledgement class to perform exception handling [process acknowledgment 311 is its own separate event which must be handled by the adapters; col. 6, line 48 - col. 7, line 13].

27. As to claims 19 – 23 and 25 – 27, these are similar in scope to claims 2 – 6 and 8 – 10; therefore, these claims are rejected for the same reasons as claims 2 – 6 and 8 – 10 above.

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28. As to claim 24, Bass teaches if requests are received from a plurality of subscribing applications, then, for each subscribing application, the common format object is transformed using an associated transformer into a format corresponding to the subscribing application and sent to the subscribing application [framework interface facilitates the publishing of events to the broker from the channel adapter... Each channel adapter includes a protocol interface 22, 23. This interface comprises the network specific protocols that enable the adapter to couple with the Internet 11; col. 3, line 50 – col. 4, line 18].

29. As to claim 29, Bass teaches a channel architecture defining a plurality of communication channels to which data objects from an application are to be published [col. 3, line 50 – col. 4, line 18].

30. As to claims 30 – 32, these are similar in scope to claims 8, 16 and 17; therefore, these claims are rejected for the same reasons as claims 8, 16 and 17 above.

31. As to claim 33, Bass teaches each process model corresponds to a different business event [col. 3, line 50 – col. 4, line 18].

32. As to claim 34, Bass teaches the shared object model comprises a central repository of data objects in an Interface Description Language (IDL) format [col. 6, lines 30 – 52 of Skeen].

33. As to claim 35, Bass teaches each transformer class corresponds to a unique application format-common format translation [framework interface facilitates the publishing of events to the broker from the channel adapter... Each channel adapter includes a protocol interface 22, 23. This interface comprises the network specific protocols that enable the adapter to couple with the Internet 11; col. 3, line 50 – col. 4, line 18].

34. As to claim 36, Bass teaches each controller class is configured to route data objects to an associated transformer class [brokers route published events to interested subscribers; col. 4, line 56 – col. 5, line 16] according to a process model [a domain specific publication/subscription (PUB/SUB) service 16, 17; col. 3, lines 1 – 22].

35. As to claim 37, this is similar in scope to the combination of claims 11 and 15; therefore, this claim is rejected for the same reasons as claims 11 and 15 above.

36. As to claim 39, Bass teaches the machine-readable instructions comprise computer software instructions executable by one or more computer systems [col. 10, lines 25 – 39].

37. As to claims 40 – 48, these are similar in scope to claims 19 – 27; therefore, these claims are rejected for the same reasons as claims 19 – 27 above.

Conclusion

38. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 6338055 discloses process for evaluating events furnished to a real time decision support system executing on a computer with respect to queries submitted by users.

U.S. Patent No. 6408291 discloses an information-sharing system to accelerating event-driven systems for providing continuous responses to multi-source real-time queries.

U.S. Patent No. 6741980 discloses an automatic real-time personalized intelligence network that actively delivers personalized and timely informational and transactional content from an OLAP-based system to individuals.

CONTACT INFORMATION

39. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Li B. Zhen whose telephone number is (571) 272-3768. The examiner can normally be reached on Mon - Fri, 8:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Thomson can be reached on 571-272-3718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Li B. Zhen
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